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10/766,989	01/28/2004	Noboru Shimoyama	1232-5267	5015

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EXAMINER	
UHLENHAKE, JASON S	

ART UNIT	PAPER NUMBER
2853	

DATE MAILED: 05/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/766,989	SHIMOYAMA, NOBORU	
	Examiner	Art Unit	
	Jason Uhlenhake	2853	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 March 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 5, 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishikawa et al (U.S. Pat. 6,364,446) in view of Otsuka (U.S. Pat. 6,497,468).

Ishikawa et al discloses:

- ***regarding claim 1 and claim 5***, ink jet printing apparatus having a carriage scanning means for moving and scanning a carriage which a print head that ejects ink is mounted (Column 6, Lines 53 – 67), print medium feeding means for feeding one of a plurality of stacked print media, and print medium conveying means for conveying the print medium fed by the pint medium feeding means to a position where printing can be carried out using the print head (Figure 10; Column 14, Lines 12 – 15)
- control means (Figure 11) for causing performance of a print medium feeding and conveying operation of continuously conveying said print medium while shifting said print medium from said print medium feeding means (1009 of Figure 11) to said print medium conveying means (Column 7, Lines 43 – 57; Column 14, Lines 11 – 15) and a preliminary ejecting operation (Column 22, Lines 49 – 58)

- control means providing control such that not all of driving of said print medium feeding means, driving of said print medium conveying means, and said preliminary ejecting operation are simultaneously performed (Column 13, Lines 45 – 62)

- ***regarding claim 6,*** the control means providing control such that the preliminary ejecting operation is started after the driving of the print medium feeding means has completed (Column 22, Lines 55 – 58)

Ishikawa et al does not disclose expressly the following:

- ***regarding claim 1 and claim 5,*** print medium feeding means to the print medium conveying means and causing in parallel performance of a preliminary ejection operation during a part of the period of the performance of the print medium feeding and conveying operation

Otsuka discloses:

- ***regarding claim 1 and claim 5,*** print medium feeding means to the print medium conveying means and causing in parallel performance of a preliminary ejection operation during a part of the period of the performance of the print medium feeding and conveying operation (Column 4, Lines 26 – 35), for the purpose of optimizing distribution of electric power for a plurality of driving sources of the printing apparatus.

At the time the invention was made it would have been obvious to a person of ordinary skill in the art to incorporate the teaching of print medium feeding means to the print medium conveying means and causing in parallel performance of a preliminary ejection operation during a part of the period of the performance of the print medium feeding and conveying operation as taught by Otsuka into the device of Ishikawa et al.

The motivation for doing so would have been to optimize the distribution of electric power for a plurality of driving sources of the printing apparatus.

Claims 2, 3, 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishikawa et al (U.S. Pat. 6,364,446) as modified by Otsuka (U.S. Pat. 6,497,468) as applied to claim 1 above, and further in view of Rasmussen et al (U.S. Pat. 4,872,026).

Ishikawa et al as modified by Otsuka discloses the following:

- ***regarding claim 4,*** wherein ink jet printing apparatus has a first driving source that electrically drives said carriage scanning means (1710 of Figure 2), a second driving source that electrically drives said print medium feeding means (1009 of Figure 11), and not all of said driving sources are simultaneously driven (Column 13, Lines 57 – 62)

Ishikawa et al as modified by Otsuka does not disclose expressly:

- ***regarding claim 2,*** wherein preliminary ejecting operation is performed concurrently with said operation performed by said print medium conveying means to convey said print medium the position where printing can be carried out using said print head, said conveying operation being included in said print medium feeding and conveying operation

- ***regarding claim 3,*** wherein said preliminary ejecting operation includes a step of allowing said carriage scanning means to move said carriage to a position where said print head can carry out preliminary ejection, a step of allowing said print head to carry out preliminary ejection, and a step of allowing said carriage scanning means to

move said carriage to a position where sad print head can execute printing on said print medium

- ***regarding claim 4,*** wherein ink jet printing apparatus has a third driving source that electrically drives said print medium conveying means

Rasmussen et al discloses:

- ***regarding claim 2,*** wherein preliminary ejecting operation is performed concurrently with said operation performed by said print medium conveying means to convey said print medium the position where printing can be carried out using said print head (Column 3, Lines 33 – 35), said conveying operation being included in said print medium feeding and conveying operation (Column 20, Lines 4 – 6). For the purpose of ensuring that all nozzles of the print head are firing properly.

- ***regarding claim 3,*** wherein said preliminary ejecting operation includes a step of allowing said carriage scanning means to move said carriage to a position where said print head can carry out preliminary ejection, a step of allowing said print head to carry out preliminary ejection (Column 19, Lines 63 – 68; Column 20, Lines 1 – 6), and a step of allowing said carriage scanning means to move said carriage to a position where sad print head can execute printing on said print medium (Column 3, Lines 36 – 40). For the purpose of clearing any nozzle clogs that might develop before printing begins.

- ***regarding claim 4,*** wherein ink jet printing apparatus has a third driving source that electrically drives said print medium conveying means (Column 1, Lines 29

– 40). For the purpose of conveying a sheet of the medium form the paper supply to the collection means through a printing zone.

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to incorporate the teaching of regarding claim 2, wherein preliminary ejecting operation is performed concurrently with said operation performed by said print medium conveying means to convey said print medium the position where printing can be carried out using said print head, said conveying operation being included in said print medium feeding and conveying operation; regarding claim 3, wherein said preliminary ejecting operation includes a step of allowing said carriage scanning means to move said carriage to a position where said print head can carry out preliminary ejection, a step of allowing said print head to carry out preliminary ejection, and a step of allowing said carriage scanning means to move said carriage to a position where sad print head can execute printing on said print medium; regarding claim 4, wherein ink jet printing apparatus has a third driving source that electrically drives said print medium conveying means; as taught by Rasmussen et al into the device of Ishikawa et al as modified by Otsuka. The motivation for doing so would have been to improve the quality of printing.

Response to Arguments

Applicant's arguments with respect to claims 1 - 6 have been considered but are moot in view of the new ground(s) of rejection. Please see the above rejections regarding Ishikawa et al (U.S. Pat. 6,364,446) in view of Otsuka (U.S. Pat. 6,497,468)

and Ishikawa et al as modified by Otsuka and further in view of Rasmussen et al (U.S. Pat. 4,872,026). They disclose a preliminary ejecting operation during a part of the period of the performance of the print medium feeding and conveying operation.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Uhlenhake whose telephone number is (571) 272-5916. The examiner can normally be reached on Monday - Friday 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JSU
April 21, 2006

K. FEGGINS
PRIMARY EXAMINER